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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,808	11/13/2001	Pentti Nieminen	602.356USW1	7300

32294 7590 01/23/2004

SQUIRE, SANDERS & DEMPSEY L.L.P.
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EXAMINER

STERRETT, JEFFREY L

ART UNIT PAPER NUMBER

2838

DATE MAILED: 01/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/010,808

Applicant(s)

NIEMINEN ET AL.

Examiner

Jeffrey L. Sterrett

Art Unit

2838

AN

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Art Unit: 2838

1. The corrected substitute drawing was received on November 24, 2003. This drawing is approved.

2. Claims 15-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15-27 are confusing since they recite that the secondary winding produces magnetic flux however conventionally only the primary winding of a transformer produces magnetic flux from an input power source while the transformer secondary winding produces power from the magnetic flux. It is suggested that instead of utilizing the term “produced by” the term --associated with-- or an equivalent term be utilized.

Claims 24 and 26 are vague and indefinite since the terms “the first side” and “the second side” lack proper antecedent basis.

Appropriate correction is required. It should be noted that the following prior art rejections are based on the best understanding of the recited invention considering the above mentioned vague, indefinite, confusing, improper, and incorrect claim language.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. It should be noted that the following prior art rejections are based on the best understanding of the recited invention considering the above mentioned vague, indefinite, confusing, improper, and incorrect claim language.

Art Unit: 2838

4. Claims 15, 17, and 28 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cielo et al (US 3,694,726).

5. Claims 15, 17, 24, 26, and 28 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bloom (US 4,864,478 or 4,961,128).

6. Claims 16 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either Cielo et al or Bloom.

Cielo et al and Bloom both teach a chopper type DC converter as recited by claims 16 and 20 except for utilizing four windings on the primary side of the converter. Utilizing multiple primary transformer windings was an old and known expedient to those of ordinary skill in the power supply art at the time of the invention. It would have been obvious to one of ordinary skill in the power supply art at the time of the invention to have modified the chopper type DC converter of Cielo et al or Bloom by utilizing four transformer primary windings instead of two transformer primary windings taught by Cielo et al or Bloom since both were old and known expedients to those of ordinary skill in the power supply art at the time of the invention.

7. Claims 18, 19, and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either Cielo et al or Bloom.

Cielo et al and Bloom both teach a chopper type DC converter as recited by claims 18, 19, and 21 except for utilizing a capacitor in parallel with the input source. Utilizing an input capacitor was an old and known expedient to those of ordinary skill in the power supply art at the

Art Unit: 2838

time of the invention. It would have been obvious to one of ordinary skill in the power supply art at the time of the invention to have modified the chopper type DC converter of Cielo et al or Bloom by utilizing a capacitor in parallel with the input source since input capacitors were old and known expedients to those of ordinary skill in the power supply art at the time of the invention.

8. Claim 22 is rejected under 35 U.S.C. § 103(a) as being unpatentable over either Cielo et al or Bloom in combination with Barrett.

Cielo et al and Bloom both teach a chopper type DC converter as recited by claim 22 except for utilizing a half bridge converter topology. Utilizing a half bridge converter topology was an old and known expedient to those of ordinary skill in the power supply art at the time of the invention, as taught by Barrett for example. It would have been obvious to one of ordinary skill in the power supply art at the time of the invention to have modified the chopper type DC converter of Cielo et al or Bloom by utilizing a half bridge converter topology since doing so was an old and known expedient to those of ordinary skill in the power supply art at the time of the invention, as taught by Barrett for example.

9. Claim 23 is rejected under 35 U.S.C. § 103(a) as being unpatentable over either Cielo et al or Bloom in combination with Morris.

Cielo et al and Bloom both teach a chopper type DC converter as recited by claim 23 except for utilizing a full bridge converter topology. Utilizing a full bridge converter topology was an old and known expedient to those of ordinary skill in the power supply art at the time of the invention, as taught by Morris for example. It would have been obvious to one of ordinary skill in

Art Unit: 2838

the power supply art at the time of the invention to have modified the chopper type DC converter of Cielo et al or Bloom by utilizing a full bridge converter topology since doing so was an old and known expedient to those of ordinary skill in the power supply art at the time of the invention, as taught by Morris for example.

10. Claim 25 is rejected under 35 U.S.C. § 103(a) as being unpatentable over either Cielo et al or Bloom.

Cielo et al and Bloom both teach a chopper type DC converter as recited by claim 25 except for utilizing a third and fourth switching elements on the secondary side. Synchronous rectifiers were old and known expedients to those of ordinary skill in the power supply art at the time of the invention. It would have been obvious to one of ordinary skill in the power supply art at the time of the invention to have modified the chopper type DC converter of Cielo et al or Bloom by utilizing a synchronous rectifier as the rectifier of Cielo et al or Bloom since doing so was an old and known expedient to those of ordinary skill in the art at the time of the invention.

11. Claim 27 is rejected under 35 U.S.C. § 103(a) as being unpatentable over either Cielo et al or Bloom.

Cielo et al and Bloom both teach a chopper type DC converter as recited by claim 27 except for utilizing two outputs on the secondary side. Utilizing multiple outputs on the secondary side of a transformer was an old and known expedient to those of ordinary skill in the power supply art at the time of the invention. It would have been obvious to one of ordinary skill in the power supply art at the time of the invention to have modified the chopper type DC converter of

Art Unit: 2838

Cielo et al or Bloom by utilizing two outputs on the secondary side since doing so was an old and known expedient to those of ordinary skill in the power supply art at the time of the invention.

12. This is a RCE of Application No. 10/010,808. All claims are drawn to the same invention claimed in the earlier application and were finally rejected on the grounds and art of record set forth above. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sterrett whose telephone number is (703) 308-1632. The examiner can normally be reached on Monday through Thursday from 8:00 AM to 5:00 PM.

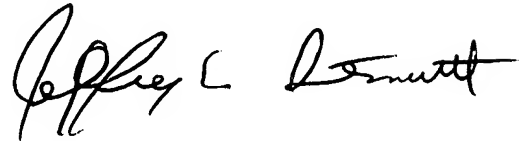
Art Unit: 2838

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry, can be reached on (703) 308-1680. The fax phone number for this Art Unit is (703) 305-7723 and the fax phone number for this Group is (703) 305-3431 or (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

jls

January 20, 2004

A handwritten signature in black ink, appearing to read "Jeffrey L. Sterrett". The signature is fluid and cursive, with the first name "Jeffrey" being more prominent.

Jeffrey L. Sterrett

Primary Examiner

Art Unit 2838